

STAROSSEL'SKIY, Abram Assirovich; ~~BELAKOVSKIY, Yakov Isayevich~~; YATSENKO,  
V.S., red.; MARCHUKOVA, M.G., red. Izd-va; LAVRENOVA, N.B.,  
tekhn.red.

[Bearings of ships shaft lines] Podshipniki sudovykh valo-  
provodov. Moskva, Izd-vo "Morskoi transport," 1959. 135 p.  
(Shafting) (Bearings (Mechanics))

BELAKOVSKIY, Ya.I., kand.tekhn.nauk; STEPANOV, G.A., inzh.

Selection of an optima alternative in stern tube construction on  
seagoing vessels. Sudostroenie 27 no.3:32-34 Mr '61. (MIRA 14:3)  
(Shipbuilding—Equipment and supplies)(Ship propulsion)

15 8360

25530

S/123/61/000/011/005/034  
A004/A101

AUTHORS: Starosel'skiy, A. A.; Belakovskiy, Ya. I.

TITLE: Some investigations of the antifriction properties of rubber

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no.11, 1961, 22; abstract 11A176  
(V. 19) "Povysheniye iznosostoykosti i stroka sluzhby mashin. v. I. Kiev, AN UkrSSR, 1961, 342-

TEXT: The authors present the investigation results of resistance to wear of the rubber grades 8075 (Shore hardness = 70-80), 1626 (shore hardness = 50-65) and ПГ-41 (PG-41), working in couples with bronze or brass. The tests were carried out on the AE-5 (AYe-5) friction machines operating on the principle of friction of three cylindrical specimens by their face ends on a rotating wheel, which makes it possible to carry out the tests under boundary lubrication conditions. Lubrication was effected with running water at room temperature, the specific load being  $p = 2-18 \text{ kg/cm}^2$ , sliding speed  $v = 0.5-4.0 \text{ m/sec}$ . The metal resistance to wear was established by the weighing method after testing for 50 and 100 hours respectively. The coefficient of friction  $\mu$  was also determined. The soft rubber grades 1626 and PG-41 wear out the 04C6-6-3 (OTs 6-6-3) bronze grade to the least extent (this grade being the softest of the tested metals). The 1626 rubber grade is highly worn by OTs 10-2 bronze. The hard 8075 rubber

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Some investigations of the antifriction ...

grade causes a lesser wear of the surfaces in contact. A direct dependence between the wear and magnitude  $\mu$  does not exist, but lower  $\mu$  values correspond to lower wear magnitudes. With an increase of the specific load  $\mu$  drops, but at a speed of  $v = 5$  m/sec it could be observed that  $\mu$  did not change with an increased load. An analysis of the profile recordings indicates a running in of the metal surface rubbing on the rubber. Low sliding speeds (0.5 m/sec) are characterized by high  $\mu$  values. The authors present also the methods and results of testing rubber bearings with water lubrication on a special pendulum machine. There are 3 figures.

G. Mekhed

[Abstracter's note: Complete translation]

Card 2/2

38722

S/191/62/000/007/009/011  
B124/B144

15.8050

AUTHORS: Belakovskiy, Ya. I., Buzkov, V. A., Kartsev, Yu. M.

TITLE: Applicability of polyamides to bearings for small propeller shafts

PERIODICAL: Plasticheskiye massy, no. 7, 1962, 62-64

TEXT: Bushes for propeller shafts of ships were made of caprone, and of caprone with 10% silvery graphite, dipped into boiling water before casting in order to remove low-molecular compounds and then dried to a moisture content of 0.15-0.20%. The temperature of the melt in the casting cylinder was 230-240°C and the corresponding pressure 40-50 kg/cm<sup>2</sup>. The molds were heated to 80-100°C, and the bushes cooled slowly to 30-40°C after casting. The low-molecular compounds (3.9%) were then removed by immersion in boiling water for 10 min per mm of wall thickness. The molecular weight of the finished polyamide was 28,000. The polyamide bushes were compressed in metal bushes, dipped in water for 10 days, and turned on a lathe to the dimensions required. River and sea water is suited for lubricating polyamide bushes, as was experimentally ascertained

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Applicability of polyamides ...

S/191/62/000/007/009/011  
B124/B144

on the basis of high hydrodynamic pressures (up to  $50 \text{ kg/cm}^2$ ) in the lubricant layer, expanding over a large area in the transverse and longitudinal sections of the bearing. Those bearings which have two bulges give the least friction, followed by bearings with three grooves and smooth bearings, finally by bearings with 10 facets, 10 strips, and bearings of rubber and metal. Bearings with two bulges are recommended for navigation in clean water, bearings with three grooves for waters contaminated by abrasive particles. In rivers the resistance of caprone bushes to wear is 1.2-1.5 times, greater than that of bronze, babbitt metal, and textolite bushes, in the sea 3 times greater. Their life is 3 or 4 times as long. The mechanical properties of caprone are not deteriorated by 1 month of storage at  $-15^\circ\text{C}$ . There are 3 figures and 1 table.

Card 2/2

BELAKOVSKIY, Ya.I.; BUZKOV, V.A.; KARTSEV, Yu.M.

Use of polyamides in small propeller shaft bearings. Plast.  
massy no.7:62-64, '62. (MIRA 15:7)

(Polyamides)  
(Bearings (Machinery))

BELAKOVSKIY, Ya.I.; BUZ'KOV, V.A.

Plastic bearing with self-formed compensator of the diametric  
gap. Mashinostroenie no.1:114 Ja-F '63. (MIRA 16:7)

(Plastic bearings)

L 24449-66 EWP(a)/EWT(m)/EWP(j)/T/ETC(m)-6 IJP(c) WN/DJ/GS/RM/WH  
ACC NR: IT6008948 (A,N) SOURCE CODE: UR/0000/65/000/000/0084/0092

AUTHORS: Belakovskiy, Ya. I.; Buzkov, V. A.

ORG: none

TITLE: Laboratory investigations and site testing of plastic supports of ship propeller shafts

SOURCE: Moscow. Institut mashinovedeniya. Plastmassy v podshipnikakh skol'zheniya; issledovaniya, opyt primeneniya (Plastics in friction bearings; research and experiment in application): Moscow, Izd-vo Nauka, 1965, 84-92

TOPIC TAGS: caprons, steel, protective covering, structural plastic, antifriction material, antifriction metal, marine equipment, ship propeller, friction bearing, polymer, wear resistance, graphite/ 1Kh18N9T steel

ABSTRACT: Recent developments in the use of plastic materials as supports for ship propeller shafts are discussed. The use of polyamides with grease lubrication has shown some promise in several applications, however, the new polymer bushings, of Soviet production have not been exposed to prolonged testing in friction pairs with metals of propeller shafts lubricated with salt and fresh water. The following criteria for bushing performance are given: 1) high wearability and low values of the coefficient of friction of rubbing pairs, 2) rational constructions, and 3) high working reliability under static and dynamic loads and in an abrasive situation. A special method of planning, modeling, and constructing laboratory test devices was

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ACC NR: AT6008948

3

developed at the Odessa Institute of Naval Engineers (Odesskiy institut inzhenerov morskogo flota). The test method permits the study of antifriction properties of plastics and metals and also the conducting of laboratory and site tests of capro-graphite slip supports of small propeller shafts. A schematic diagram of the test stand is given showing the ten basic parts of the device. A brief description of wearing mechanisms occurring with propeller shafts and bushings is presented. The results of tests performed indicate that caprone with 10% graphite - 1Kh18N9T steel and caprone with 10% graphite-chrome cadmium covering are the best wearing friction pairs for salt and fresh water service. Other results provide insight into the optimal designs of wearing pairs. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: 31Jul65/ ORIG REF: 008

Card 2/2da

BELAMARIC, Igor, ins.

The motor freighter "Split." First of the two ships which the Shipyard "Split" is building for American shipowners. (Conclusion). Brodogradnja 13 no.3:85-95 '62.

BELAMARIC, Igor, ing.

Motor cargo "Drzic." Brodogradnja 12 no.6:213-232 '61.

BELAMARIC, Igor, ins.

The motor freighter "Split," first of the two ships which the Shipyard "Split" is building for the American owners. Brodogradnja 13 no.2:63-73 '62.

BELAMARIC, Igor, ins.

Theofano Livanos, a motor freighter. Brodogradnja 13 no.6:233-235  
'62.

BELAMARIC, Igor, ins.

Synthetic materials in shipbuilding and machine construction.  
Brodogradnja 13 no.6:208-222 '62.

BELAMARIC, Igor, ins.

~~\_\_\_\_\_~~  
The Split Shipyard in 1962 and 1963. Brodogradnja 14 no.3:75-  
89 '63.

BELAMARIC, Igor

Design of merchant ships, and determination of main dimensions,  
weights and other characteristics of tankers. Pt. 1. Brodo-  
gradnja 14 no. 5: 155-173 '63.

BELAMARIC, Igor, ins.

Design of merchant ships, and determination of main dimensions,  
weights and other characteristics. Pt.2. Brodogradnja 14 no.1:  
1-15 '64.

BELAMARIC, Igor, inz.

"Abasin" and "Fakh-E-Karachi", first two 12,000 t.-motor cargo vessels built in Yugoslavia for their Pakistan owners.  
Brodogradnja 14 no.5:165-177 '64.

BELAMARIC, Igor, ins.

Design of merchant ships, and determination of main dimensions,  
weights, and other characteristics of tankers. Pt.3. Brodogradnja  
14 no.4:129-149 '64.

MAVER, H.; BELAMARIC, T.

Nutritional parathion poisoning. Arh. hig. rada 12.no.3/4:231-233  
'61.

1. Vojna bolnica, Zagreb.

(PARATHON)

(FOOD)

5

COUNTRY : Yugoslavia  
CATEGORY : Chemical Technology. Chemical Products and Their Applications--Pharmaceuticals. Vitamins. Anti-  
ABS. JOUR. : RZKhim., No. 16 1959, No. 58054 H-17  
AUTHOR : Belamaric, T.  
INST. : Not given  
TITLE : Radioisotopes in the New Pharmacopeias  
ORIG. PUB. : Farmac Glasnik, 14, No 8-9, 390-396 (1958)  
ABSTRACT : No abstract.

CARD: 1/1      \*biotics.

BEIAN, A.

Replacing insert coupons of drivers' licenses. Za bezop. dvizh.  
no.5:12 0 '58. (MIRA 11:12)

1. Machal'nik Gosudarstvenney avtomobil'noy inspektsii g. Moskvy.  
(Automobile drivers' licenses)

BEIAN, A.

Some causes of accidents. Za besop.dvish. 3 no.8:3-4 Ag '60.

(MIRA 13:11)

1. Nachal'nik' otдела Glavnoy avtomobil'noy inspeksii g.Moskvy.  
(Traffic accidents)

USSR/ General Problems of Pathology. Comparative Oncology. Tumors U-7  
in Humans

Abs Jour : Ref Zhur - Biol., No 13, 1958, No 61254

Author : Belan A., Hajnal J., Adler F., Masek R.

Inst : =

Title : Primary Cancer of the Lower Horizontal Part of the Duodenum

Orig Pub : Rozhl. chirurg., 1957, No 12, 830-835

Abstract : Description of a case of an adenocarcinoma of the lower horizontal part of the duodenum, in a patient 68 years of age. Resection was made of the duodenum and the greater part of the affected pancreas. After the operation, the patient felt well for 9 months, and died from bronchopneumonia. Postmortem did not reveal any metastasis of the adenocarcinoma. The clinical picture and differentiated diagnosis were discussed. The difficulty of a diagnosis of the above mentioned condition is emphasized.

Card : 1/1

*BELAN, A.*

FIRT, P.; BELAN, A.; HEJHAL, L.

Phlebography of the legs. Rozhl. chir. 37 no.4:227-235 Apr 58.

1. Ustav klinicke a experimentalni chirurgie, Praha, prednosta doc.

B. Spacek. P. F., Praha 13, SNB 75.

(ANGIOGRAPHY, in various dis.

phlebography in peripheral vasc. dis. of legs (Cz))

(VASCULAR DISEASES, PERIPHERAL, diag.

phlebography in dis. of leg (Cz))

MALEK, P.; KOLO, J.; ~~BEIAN, A.~~

Problems of lymphography of the deep lymphatic system of the pelvis & lower limbs. Cesk. rentg. 13 no.1:54-62 Feb 59.

1. Ustav klinicke a experimentalni chirurgie, Praha.

(LYMPHATIC SYSTEM, radiography

deep lymphatic system of pelvis & legs, technic (Cz))

(PELVIS, radiography

lymphography of deep lymphatic system, technic (Cz))

(LEG, radiography

same)

**MALIK, P.; BRIAN, A.; KOLC, J.**

**A method for the demonstration of the deep lymphatic system in the lumbar region. Ces. rentg. 13 no.5:343-348 0 '59**

**1. Ustav klinické a experimentální chirurgie, Praha-Krc.  
(LYMPHATIC SYSTEM radiogr.)**

MALEK, P.; BELAN, A.

Present state of roentgeno-lymphography, its aims and future. Cesk.  
rentg. 13 no.6:407-416 D '59.

1. Ustav klinicke a experimentalni chirurgie, Praha-Krc.  
(LYMPHATIC SYSTEM radiogr.)

MALEK, P.; KOIG, J.; ~~BEIAN, A.~~ SURIN, V.

Roentgenographic investigation of surface and deep lymphatic systems of the lower extremities. Cas. lek. cesk. 98 no.8:231-235 20 Feb 59.

1. Ustav klinicke a experimentalni chirurgie, Praha, prednosta doc. dr. B. Spacek, Statni ustav rehabilitacni, Kladruby u Vlasimi. P. M., Praha-Krc, Budejovicka 800.

(LYMPHATIC SYSTEM, radiography,

leg (Gz))

(LEG anat. & histol.

lymphatic system, x-ray (Gz))

GEYGL, L. [Heihl, L.]; HELAN, A.; FIRT, A.

Indications for and technic and functional evaluation of phlebography of the lower extremities. *Khirurgiia* 36 no.9:34-38 S '60.  
(MIRA 13&11)

1. Iz Instituta klinicheskoy i eksperimental'noy khirurgii v Prage (dir. - dotsent B. Shpachek).  
(LEG--BLOOD SUPPLY) (ANGIOGRAPHY)

KRIEGEL, F.; MALEK, P.; BELAN, A.; KOLC, J.

Lymphography of chronic progressive polyarthritis. Rev. Czech. med.  
7 no.2:87-99 '61.

1. Research Institute for Rheumatic Diseases, Prague. Director: Prof.  
F. Lench, M. D. Institute for Clinical and Experimental Surgery,  
Prague. Director: Prof. B. Spacek, M. D.

(LYMPHATIC SYSTEM radiography)  
(ARTHRITIS diagn)

TRAVNICEK, R.; BELAN, A.; PIHK, F.; technicka spoluprace: BUJKA, L.;  
KLAINOVA, E.; KRIZOVA, M.; KUTIL, V.

Our experience with roentgenographic cinematography of the digestive  
tube. Cesk.rentg. 15 no.1:10-16 F '61.

1. Ustav klinicke a experimentalni chirurgie, red. prof. Dr.Sc.  
dr. B. Spacek. Vyskumny ustav vyzivy lidu, red.doc. dr. J.Masek,  
Praha-Kro; Laboratore CSF - Barrandov.  
(GASTROINTESTINAL SYSTEM radiog)  
(CINEFLUOROGRAPHY)

PIRK, F.; BELAN, A.; TRAVNICEK, R.; BUDINOVA-SMELA, J.; FRINTOVA, A.: technicke  
spoluprace BUFKA, L.; KRIZOVE, M.; KUBIASOVE, E.; KUTILA, L.

Our experiences with roentgen cinematography in cerebral angiography.  
Preliminary report. Cesk. neur. 24 no.1:51-53 Ja '61.

1. Ustav pro vyzkum vyzivy lidu, Praha, reditel doc. MUDr. J. Masek -  
Ustav pro klinickou a experimentalni chirurgii, Praha, reditel profesor  
MUDr. B. Spacek - Oddeleni pro cervni onemocneni mozku, predn. doc.  
MUDr. J. Budinova-Smela, Laboratore statniho filmu, Barrandov.

(CEREBRAL ANGIOGRAPHY)

MALEK, P.; BELAN, A.

Role of lymphography in clinical practice, Roshl.chir.40 no.2-3:  
150-154 Mr '61.

1. Ustav klinické a experimentální chirurgie, Praha-Krc.  
(LYMPHATIC SYSTEM radiog)

KRIEDEL, F.; MALEK, P.; BELAN, A.; KOLC, J.

Chronic progressive polyarthritis in the lymphographic picture.  
Cas.lek.cesk 100 no.3:65-72 20 Ja '61.

1. Vyskumny ustav chorob revmatickych, Praha, reditel prof. MUDr.  
Fr. Lencok; Ustav klinicke a experimentalni chirurgie, Praha-Kro,  
reditel prof. MUDr. B. Spacek.

(ARTHRITIS RHEUMATOID radiog)  
(LYMPHATIC SYSTEM radiog)

BELAN, A.

You should begin planning for a car. Za bezop. dvizh. 5 no.6:5-6  
Je '62. (MIRA 15:10)

1. Zamestitel' nachal'nika Otdela regulirovaniya ulichnogo  
dvizheniya i Glavnaya avtomobil'naya inspektsiya Upravleniya  
vnutrennikh del Iсполnitel'nogo komiteta Moskovskogo gorodskogo  
soveta deputatov trudyashchikhsya.

(Transportation, Automotive)

BELAN, A. ; POSPICHAL, J. Technicka spoluprace: BUFKA, L.

Diagnostic possibilities of angiography on the AOT 35/35  
seriograph. Cesk. rentgen. 18 no.4:236-242 JI'64

1. Ustav klinicke a experimentalni chirurgie v Praze; redi-  
tel: prof. dr. B.Spacek, DrSc.

ZASTAVA, V.; KOLC, J.; BELAN, A.

Chlortetracycline fluorescence in the myocardium damaged by temporary occlusion of the coronary artery. Rozhl. chir. 44 no.5:295-298 My'65.

1. Ustav klinické a experimentální chirurgie v Praze (reditel: prof. dr. B. Spacek, DrSc.).

BELAN, A.; KOLC, J., technicka spoluprace HUFKA, L.

Experimental proof of various forms of lymphovenous anastomoses.  
Rozhl. chir. 44 no.5:344-347 My'65.

1. Ustav klinicke a experimentalni chirurgie v Praze (reditel:  
prof. dr. B. Spacek, DrSc.).

BELASH, A.S., inzh.

Stripping excavator with a bucket capacity of 150 M<sup>3</sup>. Shakht.  
stroil. 8 no.3:30 Mr '64. (MIRA 17:3)

BELAN, A. YE.

42226. BELAN, A. YE. Manometricheskaya s yemka vodoprovodov. Sbornik trudov DIIT'a (Dnepropetr. In-t inzh. Zh.-d. Transporta im. Kaganovicha), vyp 17, 1947, c. 79-89.

So: Letopis' Zhrunal'nykh Statey, Vol.47, 1948.

BELAN, A.Ye., dots., kand.tekhn.nauk

Effect of wave formation on the performance of an inertia water  
scoop. Nauch.dokl.vys.shkoly; stroi. no.3:269-273 '58. (MIRA 12:7)

1. Rekomendovana kafedroy gidravliki i vodosnabzheniya Dnepropetrov-  
skogo instituta inzhenerov zheleznodorozhnogo transporta.  
(Locomotives) (Hydraulics)

BEIAN, A.Ye., kand.tekhn.nauk, dotsent

Inertial lifting of a liquid by means of a reciprocating tube.  
Izv.vys.ucheb.zav.; energ. no.5:114-119 My '58. (MIRA 11:8)

1. Dnepropetrovskiy institut inzhenerov zheleznodorozhnogo  
transporta.

(Hydraulics)

BELAN, A.Ye., dots., kand.tekhn.nauk

Formula for approximate determination of the time of initial  
filling of the pipe of an inertia liquid raising unit. Trudy  
DIIT no.27:183-186 ' 58. (MIRA 12:1)  
(Liquids, Kinetic theory of) (Railroads--Water supply)

BELAN, A.Ye., dots., kand.tekhn.nauk

Determining dimensions of track pans for inertia water raising  
units. Trudy DIIT no.27:187-194 ' 58. (MIRA 12:1)  
(Liquids, Kinetic theory of) (Railroads--Water supply)

BRIAN, A.Ya., kand.tekhn.nauk, dots.

Power and efficiency of inertial liquid-lifting devices. Izv.  
vys.ucheb.zav.; energ. 2 no.5:129-134 My '59.  
(MIRA 12:10)

1. Dnepropetrovskiy institut inzhenerov zheleznodorozhnogo  
transporta.  
(Hydraulics)

BELAN, A.Ye., kand. tekhn. nauk, dots.

Irregular motion of a liquid in the pipe of an unevenly moving inertial liquid lifter. *Izv. vys. ucheb. zav. energ.* 3 no.2:123-124 F '60.

1. Dnepropetrovskiy institut inzhenerov zheleznodorozhnogo transporta.  
Predstavlena kafedroy gidravliki i vodosnabzheniya.  
(Hydraulics)

BELAN, A.Ye., dotsent, kand.tekhn.nauk

Some problems of the transitional processes of the liquid updraft  
at the expense of its inertia. Trudy DIIT no.36:4-30 '62.  
(MIRA 16:10)

-RUMANIA/Cultivated Plants. Potatoes. Vegetables. Melons. H

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20323.

Author : N. Savinova, D. Belan, S. Aleksa, V. Choake.  
Inst : Agricultural Scientific Research Institute, Rumanian  
People's Republic.

Title : On the Problem of Cultivating the Shoots of Vegetable  
Crops in Feeding Vessels. (K voprosu vyrashchivaniya  
rassady ovoshchnykh kul'tur v pitatel'nykh gorshochkakh).

Orig Pub: Comun. Acad. RPR, 1956, 6, No 9, 1123-1129.

Abstract: In the vegetable raising division of the Agricultural  
Scientific Research Institute (RPR) a study was made  
of mixtures for the turf-mold vessels and norms of  
mineral fertilizing. The advantages of lowland and up-  
stream turf above other materials has been established.  
The amount of mineral fertilizers depends on the crop

Card : 1/2

RUMANIA/Cultivated Plants. Potatoes. Vegetables. Melons.

M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20335.

Author : Part I [a]: D. Belan; Part I [b]: D. Belan, L. Mayer.  
Inst : Not given.  
Title : The Leading Methods of Obtaining Early and Increased Vegetable Yields. I. The Selection, Vernalization and Stimulation of Seed Germination. (Belan). Obtaining High Quality Sprouts. (Belan, Mayer). (Peredovyye metody polucheniya rannykh i povyshennykh urozhayev ovoshchey. I. Otbor, yarovizatsiya i stimulyatsiya prorastaniya semyan. Belan. Polucheniye vysokokachestvennoy rassady. Belan, Mayer.)

Orig Pub: Gradina, via si livada, 1957, 6, No 2, 8-14.

Abstract: At the testing station for vegetable raising at Tsigeneshti

Card : 1/2

Card : 2/2

RUMANIA/Cultivated Plants. Potatoes. Vegetables. Melons. M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20329.

Author : D. Belan, B. Menesku

Inst : Not given.

Title : Forced Vegetable Crop in Velingrad (Bulgaria). (Vygonoch-naya kultura ovoshchey v Velingrade ((Bolgariya)) ).

Orig Pub: Gradina, via si livada, 1957, 6, No 2, 80-84.

Abstract: The methods of raising tomatoes, cucumbers, red cayenne in the Velingrad hot houses are described.

Card : 1/1

BELAN, F. I.

PA 14/49T18

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USSR/Engineering  
Corrosion - Prevention  
Boilers

May 48

"Ammonia Method of Conservation (Protection From  
Corrosion) of Reserve Boilers," F. I. Belan,  
Engr, 2 pp

"Elek Stants" No 5

Describes preservation of reserve boilers from  
internal corrosion by filling them with ammonia.

14/49T18

BELAN, F. I.

USSR/Chemistry - Water Purification  
Engineering - Filters, Quartz  
Nov 48

"Increasing the Effectiveness of Quartz Filters,"  
F. I. Belan, Engr, 2 pp

"Elek Stants" No 11, 13-14

Experiments of TsKIVL (Gen. Sci Control Water Lab)  
showed operation of mineral filters can be improved  
by increasing diameter of filters to 1.5-2.0 meters  
and using larger sand fractions (1-2 mm). Speed of  
filtration can then be increased to 8-10 meters/hr.

54/49723

Eng., Main Electric Power Administration,  
Ministry of Metal Industries, - 1948 -

BELAN, F. I.,

"High Production Filtration Stations," Stal', No. 9, 1948.

Engr., Glav Energo Ministry of Metal Industries.

BRILAN, Fedor Ivanovich, inzhener; GURVICH, S.M., redaktor; NEPOMNYASHCHIY,  
N.Y., redaktor; VEYBESHCHYH, Ye.B., tekhnicheskiy redaktor

[Water cycle in electric power stations of metallurgical plants]  
Vodnyi reshim elektrostantsii metallurgicheskikh predpriatii.  
Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi  
metallurgii, 1954. 186 p. (MIRA 8:3)  
(Feed water) (Steam boilers)

BELAN, F.I.

N/5  
671.315  
.84

DIE RATIONALISIERUNG DER ARBEIT IN WASSERBEREITUNGSANLAGEN METALLURGISCHER  
BETRIEBE. BERLIN, TECHNIK, 1955.

143: PLUS I P. ILLUS., DIAGRS., TABLES.

TRANSLATION FROM THE RUSSIAN:

"RATSIONALIZATSIA RABOTI VODOPODGOT, OVITEL'NYKH USTANOVOK METALLURGICHESKIKH  
PREDPRIATIIY." MOSCOW, 1952.

ADDED T. -P. IN RUSSIAN.

LITERATUR": P. (144)

BELAN, F. L.

*Wahl*  
✓ BELAN, F. L. "Die Rationalisierung der Arbeit in Wasser-  
aufbereitungsanlagen metallurgischer Betriebe." (Über-  
setzung aus dem Russischen; Deutsche Redaktion, A.  
Spitzberger). 8vo, pp. 1-4. Illustrated. Berlin, 1956:  
VEB Verlag Technik. (Price DM. 17.40).

Translation of Title: "The Distribution of Work in Water  
Purification Plants of Metallurgic  
Industries." (Translation from  
Russian)

AUTHOR: Belan, F. I., Eng.

374

TITLE: Causes of the formation of deposits in equipment for wet cleaning of gas. (Prichiny obrazovaniya otlozheniy v apparature mokroy gazoochistki).

PERIODICAL: "Stal'" (Steel), 1957, No.4, pp.366-369 (U.S.S.R.)

ABSTRACT: On the Gosogorsk Works some difficulties were encountered in cleaning gas from blast furnaces producing ferromanganese. For this reason the problem of the formation of hard deposits in the cleaning equipment was investigated. The cleaning equipment consisted of scrubbers, the filling of which was washed with recirculated water containing up to 600 mg/l of suspended solids. In the lower part of the scrubber, before the hurdles, gas is treated by so-called hot washing with recirculated water. For this hot washing as well as for continuous washing of electrostatic precipitators, the water is specially filtered. Make up water amounted to only 2%. Two theories of the formation of hard deposits were proposed: 1) cementation, i.e. solidification of slurries; 2) crystallisation, i.e. separation of low soluble compounds from their saturated solutions mainly calcium carbonate and hydrated manganese oxide. Experimental evidence (analyses of deposits Tables 2 and 3) indicated that the second theory was correct in the case investigated. In order to

Causes of the formation of deposits in equipment for wet cleaning of gas. (Cont.) 374

decrease the formation of deposits it is proposed to keep primary washing of gas on a separate water circuit and its periodic cleaning with acidified water. Three stage gas cleaning is also advocated with water entering the third stage passing through the second and then through the first stage. Editorial note at the end of the paper indicates some doubts regarding the author's views. There are 3 tables and 1 diagram.



EKLAN, Fedor Ivanovich; KOSTRIKIN, Yu.M., kand.tekhn.nauk., red.; POPELYSHKO, I.F., inzh., red.; VAGIN, A.A., red.izd-va; ISLENT'YEVA, P.G., tekhn.red.

[Treatment of water; collection of problems] Vodopodgotovka; sbornik zadach. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1958. 240 p. (MIRA 13:8)  
(Feed water---Problems, exercises, etc.)

BELAN, Fedor Ivanovich; MAMET, A.P., doktor tekhn. nauk, retsenzent;  
GURVICH, S.M., inzh., red.; BUL'DYAYEV, N.A., tekhn. red.

[Feed water purification] Vodopodgotovka. Izd.2., perer.  
Moskva, Gosenergoizdat, 1963. 319 p. (MIRA 16:11)  
(Feed water purification)

BELAN, F.I., inzh.; ILOVAYSKAYA, M.V., inzh.

Magnetic treatment of boiler feedwater. Prom. energ. 18 no.11:  
33-37 N '63. (MIRA 17:12)

BELAN, F.I., kand. tekhn. nauk

Behavior of nitrites in the steam and water cycle of an electric  
power plant. Teploenergetika 11 no.6:43-46 Je '64. (MIRA 18:7)

MESHCHERSKIY, Nikita Alekseyevich; BELAN, F.I., red.

[Operation of the water heating systems of high-pressure electric power plants] Eksploatatsiya vodopodgotovitel'nykh ustanovok elektrostantsii vysokogo davleniya. Moskva, Energiia, 1965. 463 p. (MIRA 18:12)

ACC NR: AM5028932

(N) Monograph

UR/

Afonin, Z. M. (Engineer); Bekenskiy, B. V. (Engineer); Belan, F. N. (Engineer);  
Goryanskiy, YU. V. (Candidate of Technical Sciences); Grigor'yev, YA. N. (Engineer);  
Kovalevskiy, G. V. (Candidate of Technical Sciences)

Theory and equipment of ships (Teoriya i ustroystvo sudov) Moscow, Izd-vo "Transport",  
65. 0371 p. illus., biblio. Errata slip inserted. 8,000 copies printed.

TOPIC TAGS: shipbuilding engineering, marine engineering, ship component, ship  
navigation, marine engine, hydrodynamics /

PURPOSE AND COVERAGE: This book studies the problems of the theory of ships (statics  
and dynamics) and gives a basic survey of ship engines, construction and the stabi-  
lity of a ship's hull, structures and systems. This manual is recommended for stu-  
dents in ship navigation departments of the higher engineering marine schools and al-  
so can be used by students in other departments of the same schools. This book would  
be useful for students and engineers in the Navy.

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Ch. II. Initial stability of ships —29

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- Ch. VI. Resistance of water to movement of the ship-100
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KOTLYAKOVA, O.I., tekhn. red.

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SO: Monthly List of Russian Accessions, Vol 6 No 4, July 1953

*BELAN, G. H.*

KUPCHINSKIY, P.D., kandidat tekhnicheskikh nauk; BELAN, G.A.; AKATOV, S.K.

Continuous production of soap in a vacuum installation. Masl.-zhir.  
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1. Vsesoyuznyy nauchno-issledovatel'skiy institut shirov. (for  
Kupchinskiy, Belan) 2. Mylovarennyy zavod imeni Karpova (for Akatov)  
(Soap industry) (Vacuum apparatus)

BAIAN, G.A.; MOLCHANOV, P.I., inzh.

Some economic data on the production and use of fats in the  
U.S.A. and capitalist countries of West Europe. Masl.-zhir.  
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Processing of sunflower seeds by individual suppliers. Masl.-shir.  
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BELAN, G.A.

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Erecting pile foundations for metal abutments with arched cross  
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~~BREAN, I~~

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1. Direktor tekhnicheskogo uchilishcha no.6 g. Zaporozh'ya.  
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MATS, A.S., podpolkovnik meditsinskoy sluzhby; BELAN, K.Ye., mayor  
meditsinskoy sluzhby

Radiography as a method detecting metallic foreign matter in food.  
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KORMAKOVA, I.I.; BELAN, L.F. (Kiyev)

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MOGILEVICH, P.N. [Mohylevych, P.N.]; ~~BEIAN, L.F.~~ [Bielan, L.F.]; PAVLYUKOVA,  
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BELAN, M.G. (Khar'kov 24, Pushkinskaya ul., d.67/69, kv.4)

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1. Iz Khar'kovskogo meditsinskogo instituta (rektor - dotsent B.A. Zadorozhnyy) i Ukrainskogo instituta okhrany materinstva i detstva imeni N.K.Krupskoy (dir. - kand. med. nauk A.I. Kornilova).

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(KNEE, dis.

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(MIRA 14:3)

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MAKSIMOV, V.A., inzh.; ORLOV, V.G., inzh.; KOSTYLEV, A.D., kand. tekhn. nauk; GURKOV, K.S., kand. tekhn. nauk; KREYMER, V.I., inzh.; BELAN, N.A., inzh.

Testing the BFM-1 boring and loading machine at the Sarany chromite mine. Shakht. stroi. 8 no.5:17-21 My'64 (MIRA 17:7)

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2. Saranovskiy khromitovyy rudnik Zapadno-Ural'skogo soveta narodnogo khozyaystva (for Orlov).
3. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Kostylev, Gurkov, Kreymmer).
4. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Belan).

MAKSIMOV, V.A., inzh.; ORLOV, V.G., gornyy inzh.; KOSTYLEV, A.D., kand. tekhn. nauk; GURKOV, K.S., kand. tekhn. nauk; KREYMER, V.I., inzh.; BELAN, N.A., inzh.; PONOMARENKO, Yu.F., kand. tekhn. nauk

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ALIMOV, O.D., dots.; VOLKOV, A.N., inzh.; BELAN, N.A., inzh.

Present day techniques of hard heading in the Prokop'yevsk-Kisilevsk area and trends toward an over-all mechanization. Izv.vys. ucheb.zav.; gor.zhur. no.6:42-54 ' 58. (MIRA 12:1)

1. Tomskiy politekhnicheskii institut.  
(Kuznetsk Basin--Coal mining machinery)

VOLKOV, A.N., kand.tekhn.nauk; HELAN, N.A., inzh.

Adjusting device for long-stroke drills. Sbor. KuzNIUI no.8:  
5-22 '61. (MIRA 16:3)  
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BELAN, N.A., inzh.; GUSEV, A.F., inzh.

Efficiency of the use of rotary and rotary-percussion boring  
method in natural development workings in the Kuznetsk Basin  
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BELAN, N.A., inzh.; MAKSIMOV, V.A., inzh.; VOLKOV, A.N., kand. tekhn.  
nauk; GURKOV, K.S.

Development of actuating mechanisms of cutter-loaders. Sbor.  
KuzNIUI no.10:151-164 '64. (MIRA 18:9)

*Belan, N.I.*

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110  
5054\* Properties of Industrial Forgings of Steel 20KhM.  
Svoistva promyshlennykh pokovok iz stali 20 KhM. (Rus-  
sian.) N. I. Belan, V. V. Novikov, and V. M. Kanfor. *Metallo-  
vedenié i obrabotka metallov*, 1935, no. 5, Nov., p. 33-41. (2)

Alloy-steel forgings, with cross-sections up to 145 mm, have  
practically no variation in creep limit, strength, or hardness  
throughout the piece. Graphs, tables, diagrams. 5 ref.

*pm of*

*Belan, N.I.*

137-58-2-4171

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 272 (USSR)

AUTHORS: Snitko, M.N., Belan, N.I., Novikov, V.V.

TITLE: The High-temperature-resistant Cast Steel 20KhML (Litaya teploustoychivaya stal' 20KhML)

PERIODICAL: V sb.: Prochnost' metallov. Moscow, AN SSSR, 1956, pp 110-111

ABSTRACT: Data are given on the properties of two industrial heats, (from a basic electric furnace) of the cast Cr-Mo steel 20KhML. Described are the composition, mechanical properties before and after heat treatment, coefficient of linear expansion, mechanical properties at high temperatures (up to 650°C), and the results of creep and long-term strength tests made at 470, 510, and 550°. Steel 20KhML, having a 5-6 point grain size, does not readily graphitize. Its nominal creep limit (at a deformation rate of  $1 \cdot 10^{-5}$  percent per hour) is 16.2 kg/mm<sup>2</sup> at 470°, 6.6 kg/mm<sup>2</sup> at 510°, and 2.9 kg/mm<sup>2</sup> at 550°. Its long-term rupture strength (with rupture at the end of 100,000 hours) is 26 kg/mm<sup>2</sup> at 470°, 14 kg/mm<sup>2</sup> at 510°, and 6 kg/mm<sup>2</sup> at 550°. After heat treatment steel 20KhML does

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137-58-2-4171

The High-temperature-resistant Cast Steel 20KhML

not tend toward heat embrittlement (in the 450-550° range) whether or not subjected to stress, though the  $a_k$  value does decline at subfreezing temperatures. When normalized, this steel has a slight tendency toward tempering brittleness, which is especially evident at -20 and -50°, when a tempering at 400 and 600° has been followed by a slow cooling.

A.S.

1. Steel--Structural analysis
2. Steel--Mechanical properties

Card 2/2

*BELAN, N.I.*

129-10-11/12

AUTHOR: Altykis, A.V., Candidate of Technical Sciences and  
Belan, N.I., Engineer.

TITLE: On increasing the temperature at the end of the deformation process as a medium for reducing the force of stamping of large-size blanks. (Povysheniye temperatury okonchaniya deformirovaniya kak sredstvo snizheniya usiliya shtampovki krupnogabaritnykh zagotovok)

PERIODICAL: "Metallovedeniye i Obrabotka Metallov" (Metallurgy and Metal Treatment), 1957, No.10, pp.48-52 (U.S.S.R.)

ABSTRACT: The problem is considered of reducing the necessary press pressure by increasing the temperature of the blanks at the end of the forging cycle. It was established by experience that free forging of alloy structural steel containing 0.3 - 0.5% C should be terminated at a temperature of 800-900 C; termination of the forging at a higher temperature frequently leads to over-heating of the steel and thus to a reduction in the ductility and particularly in the impact strength. In the case of small components, the temperature at the end of the deformation frequently exceeds 900 C, but the necessary structure and the mechanical properties are restored by subsequent heat treatment. The possibility of increasing the temperature at the end of the

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129-10-11/12

On increasing the temperature at the end of the deformation process as a medium for reducing the force of stamping of large-size blanks. (Cont.)

deformation cycles was established during the manufacture of 298 blanks for turbine discs made of the steels 40X, 40H, 43H, 34XM and 34XH3M. At the Nevsk Works imeni Lenin, cylindrical blanks of 450 mm dia. and 350 mm height were forged from ingots weighing 1.5 to 1.8 tons; at the K. Liebknecht Works, these blanks were heated to 1 200 - 1 220 C, swaged and pierced on a 3 000 ton press and then forged on a 7 000 ton press; the temperature at the end of the forging (of turbine discs) was 1 025 C. All the operations at the K. Liebknecht Works were effected without intermediate heating; force-press travel diagrams, Fig.2, p.50, show that during the latter operation, the full press power of 7 000 tons was used. According to existing specifications, the temperature at the end of the forging should not be below 800 and not above 900 C. Consequently, for forging the above mentioned turbine discs with a temperature of 800 C at the end of the forging process, a press of 14 000 to 15 000 tons would be required which is almost twice the power of the actually used press. Similar savings in the press pressure can Card 2/3 also be obtained for other grades of steel and, therefore, if